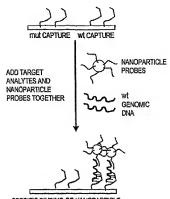
DIRECT SNP DETECTION WITH UNAMPLIFIED DNA Application No.: 10/735,357 Applicant: Yijia P. BAO Replacement Sheet: Page 1 of 28

FIG. 1



SPECIFIC BINDING OF NANOPARTICLE
PROBES TO wt CAPTURE PROBES VIA WT
TARGET ANALYTE IN A SANDWICH FORMAT

# FIG. 2



mut CAPTURE Wt CAPTURE



HYBRIDIZE WI DNA TO CAPTURE PROBES UNDER HIGH STRINGENCY



CAPTURE OF WITARGET ANALYTES BY WIT CAPTURE PROBES ONLY

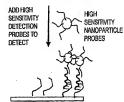
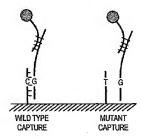
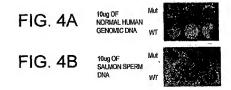
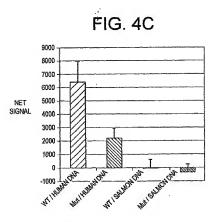


FIG. 3



### DIRECT SNP DETECTION WITH UNAMPLIFIED DNA Application No.: 10/735,357 Applicant: Yijia P. BAO Replacement Sheet: Page 3 of 28

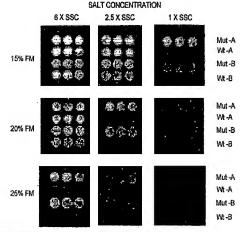




### DIRECT SNP DETECTION WITH UNAMPLIFIED DNA Application No.: 10/735,357 Applicant: Yijia P. BAO Replacement Sheet: Page 4 of 28

FIG. 5

### ----



FORMAMIDE CONCENTRATION

### DIRECT SNP DETECTION WITH UNAMPLIFIED DNA Application No.: 10/735,357 Applicant: Yijia P. BAO Replacement Sheet: Page 5 of 28

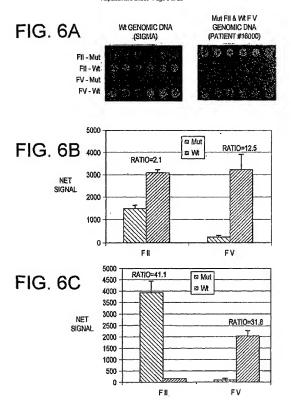


FIG. 7A

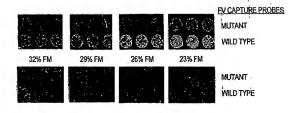
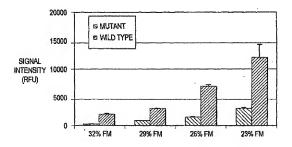
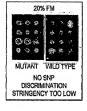


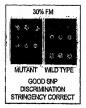
FIG. 7B



### DIRECT SNP DETECTION WITH UNAMPLIFIED DNA Application No.: 10/735,357 Applicant: Yijia P. BAO Replacement Sheet: Page 7 of 28

# FIG. 8







EV CAPTURE PROBE Mut - 26mer Wt - 24mer Mut - 21mer Wt - 20mer

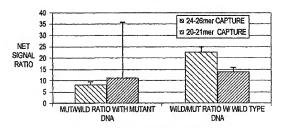
### DIRECT SNP DETECTION WITH UNAMPLIFIED DNA Application No.: 10/735,357 Applicant: Yijia P. BAO Replacement Sheet: Page 8 of 28

FIG. 9A



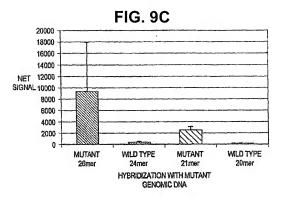
MUTANT 26mer WILD TYPE 24mer MUTANT 21mer WILD TYPE 20mer

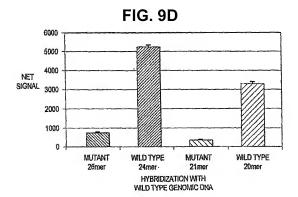
FIG. 9B



RATIO OF SIGNAL INTENSITIES

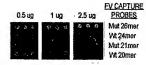
DIRECT SNP DETECTION WITH UNAMPLIFIED DNA Application No.: 10/735,357 Applicant: Yijia P. BAO Replacement Sheet: Page 9 of 28





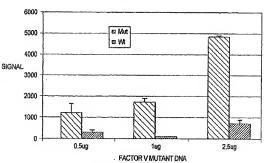
### DIRECT SNP DETECTION WITH UNAMPLIFIED DNA Application No.: 10/735,357 Applicant: Yijia P. BAO Replacement Sheet: Page 10 of 28

### **FIG. 10A**



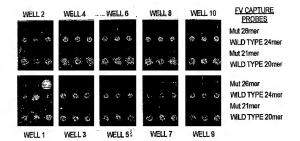
IMAGES OF FAC. V ARRAY HYBRIDIZED WITH MUTANT GENOMIC DNA.

# **FIG. 10B**

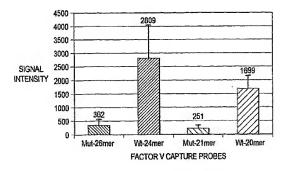


SIGNAL INTENSITIES FOR MUTANT (26mer) AND WILD TYPE (24mer) CAPTURE PROBES

## **FIG. 11A**



**FIG. 11B** 



**FIG. 12A** 

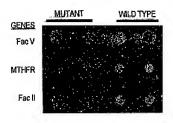
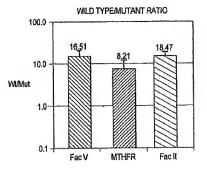


FIG. 12B



**FIG. 13A** 

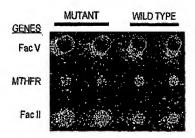
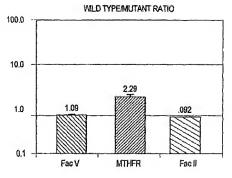


FIG. 13B



### DIRECT SNP DETECTION WITH UNAMPLIFIED DNA Application No.: 10/735,357 Applicant: Yijia P. BAO

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WILD TYPE MUTANT **GENES** FIG. 14A Fac V Fac II MTHFR

FIG. 14B

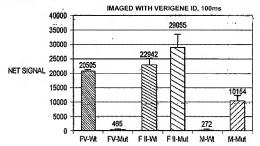
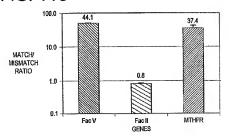
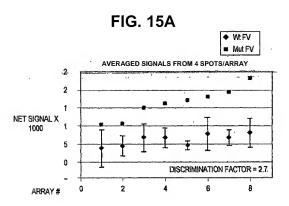
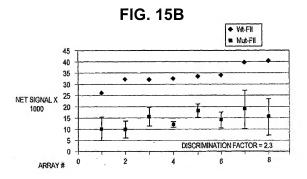


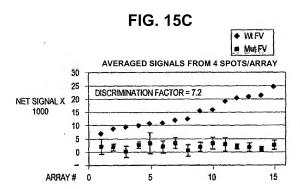
FIG. 14C

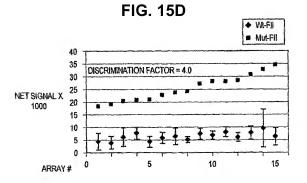


DIRECT SNP DETECTION WITH UNAMPLIFIED DNA Application No.: 10/735,357 Applicant: Yijia P. BAO Replacement Sheet: Page 15 of 28









# **FIG. 16A**

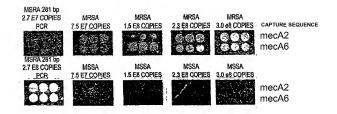
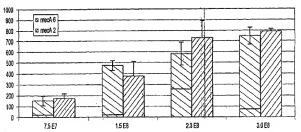


FIG. 16B



### **FIG. 17A**

### SAMPLE

TARGET COPY S. AUREUS S. EPIDERMIDIS CAPTURE SEQUENCES

3.0 E + 7 Tuf 372





← Tuf3 = S. AUREUS

← Tuf4 = S. EPIDERMIDIS

NO



Tuf3 = S. AUREUS

★ Tuf4 = S. EPIDERMIDIS

8.0 E + 7 GENOMIC

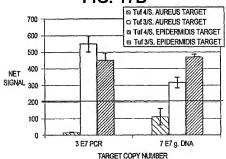




★ Tuf3 = S. AUREUS

← Tuf4 = S. EPIDERMIDIS





### FIG. 17C

### SAMPLE

#### S. AUREUS S. EPIDERMIDIS TARGET COPY CAPTURE SEQUENCES

3.0E+7





← Tuf5 = S. AUREUS

Tuf 372



← Tuf6 = S. EPIDERMIDIS



← Tuf5 = S. AUREUS ← Tuf6 = S. EPIDERMIDIS

8.0 E + 7 GENOMIC

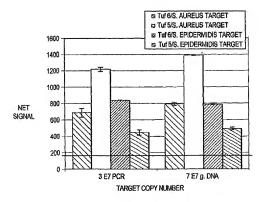




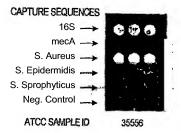
← Tuf5 = S. AUREUS

← Tuf6 = S. EPIDERMIDIS

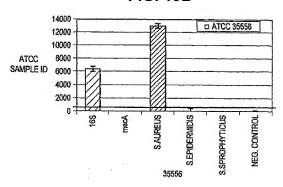
## FIG. 17D



# **FIG. 19A**

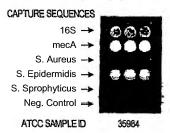


# FIG. 19B



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# FIG. 19C





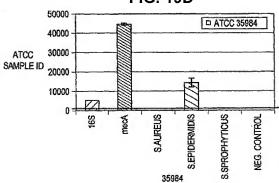


FIG. 19E

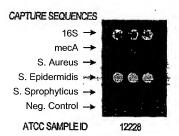
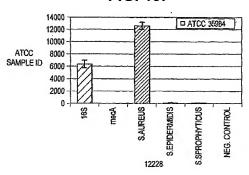
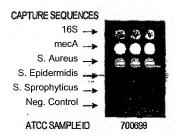


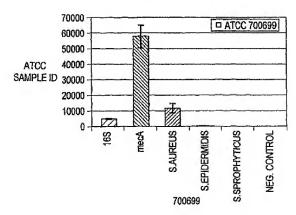
FIG. 19F



# FIG. 19G



**FIG. 19H** 



## FIG. 191

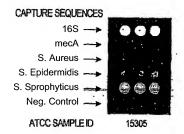
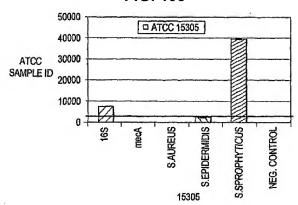
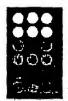


FIG. 19J

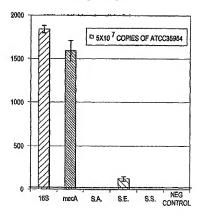


**FIG. 20A** 



ATCC 35884

**FIG. 20B** 

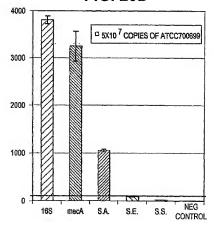


**FIG. 20C** 



ATCC 700699

**FIG. 20D** 



**FIG. 20E** 



ATCC 12228

**FIG. 20F** 

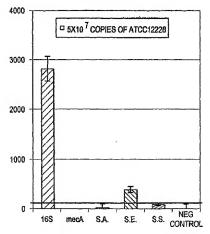


FIG. 21

